

Masthead Logo

Scholar Works

Honors Theses

Honors

2019

Accessing the Extreme: Adaptive Opportunities for High Adventure Programs

Whitney LeMay

University of Maine at Farmington

Follow this and additional works at: https://scholarworks.umf.maine.edu/honors_theses

Recommended Citation


LeMay, Whitney, "Accessing the Extreme: Adaptive Opportunities for High Adventure Programs" (2019). *Honors Theses*. 3.
https://scholarworks.umf.maine.edu/honors_theses/3

This Research Project is brought to you for free and open access by the Honors at Scholar Works. It has been accepted for inclusion in Honors Theses by an authorized administrator of Scholar Works. For more information, please contact sotley@maine.edu.


Approval Page
HON 499 Thesis or Creative Project

Whitney LeMay
May 6, 2019

Frank Engert
Thesis Advisor's Name


Thesis Advisor's Signature

John Messier
Honors Director's Name


Honors Director's Signature

Accessing the Extreme: Adaptive Opportunities for High Adventure Programs

Whitney LeMay

Submitted in partial fulfillment of the requirements for the University Honors Scholar Designation

April 26th, 2019

Frank Engert

Thesis Advisor's Name

[Signature]

Thesis Advisor's Signature

May 6, 2019

Date

Contents

Appreciation.....	ii
Introduction.....	1
Purpose of the Thesis	2
Overview of the Contents	4
Literature Review.....	5
Methodology	5
Organizations and the Industry	6
Military Focus.....	10
Benefits Obtained.....	14
Interviews.....	16
Interviewees	17
Insights.....	17
Usefulness of Interview Feedback	20
Surveys.....	20
Generation of Survey and Approval	20
Process of Collection	23
Analyzing the Data	23
Discussion of Results	24
Best Practices.....	26
Suggested Changes and Applications	27
Conclusions.....	29
Current Offerings	31
Final Thoughts	32
Works Cited.....	35

Appreciation

This thesis would not have been possible without the support of several people. Doctor Frank Engert for his help and oversight for the project as my advisor. Carla Chatterton with Soldiers Undertaking Disabled Scuba, Liz Peacock and Brandon Merry with Maine Adaptive for their industry insights. Chuck Almany and Mackenzie MacDonald for agreeing to be formally interviewed and sharing their perspective as adaptive athletes. Caitlin Conner and the whole Be More Adaptive Facebook community for connecting myself with willing participants to take the survey.

Introduction

High adventure recreation for those with a disability might seem to be a wild idea, one that does not fit with the mental image of outdoor recreation¹. However, it does not have to be such an unusual concept. It is worth investigating how high adventure programs² could be made adaptable to the needs of those with a disability. In taking a slightly different approach to a thesis by looking at a gap in a business sector and proposing suggestions for an existing or new organization to take and apply – there can be an expansion of the market offerings to close the gap. By focusing on outdoor recreation there initially does not appear to be much that does not have some form of representation within the sector. However, by looking into the markets involved within the sector it becomes apparent that there is a gap. Those without a disability for the most part can go and do an activity be it hiking, biking, climbing, or paddling. However, those with a disability are often unable to do so with such freedom because organizations do not tend to carry the specialized equipment or have the trained staff confident in making adaptations. Is there space in the outdoor recreation market to include program offerings that allow those with a disability to just go and do with the same freedom as their counterparts without a disability and participate in high adventure activities?

By looking at the numbers, there does exist the potential for an overlap in participation in outdoor recreation from the adaptive community. There are over 40 million people in the United States as of 2017 with some form of disability according to the United States Census Bureau

¹ Outdoor recreation is defined by the Bureau of Economic Analysis as “activities undertaken for pleasure that generally involve some level of intentional physical exertion and occur in nature-based environments outdoors” (How will outdoor recreation be defined?, 2017).

² High adventure does not have one set definition. It can be considered in discussion for this thesis as a recreational activity elevated - outdoor rock climbing, downhill mountain biking, ziplining. Experiences that fill one with an adrenaline rush and that do not tend to be done on an everyday basis.

(American Fact Finder, 2010), and with 144 million of the 325 million Americans citizens participating in some form of outdoor recreation (Outdoor Recreation Participation Report 2017, 2017). Is there space in the outdoor recreation sector to create new opportunities for adaptive participants to engage with high adventure activities and experience activities that push themselves and their abilities. What are some of the current thoughts in the sector about adaptive participants and how does that differ from what potential adaptive participants of outdoor recreation feel about the field themselves.

One challenge that gets mentioned as a reason for fewer participants with disabilities is a lack of access. Access in this thesis refers to a lack of means of participate in outdoor recreation (i.e. no transportation to a facility, no facilities located in a reasonable distance, or the lack of needed equipment). Some access issues are touched on by researchers cited in the literature review, others by the respondents to the project's survey.

Purpose of the Thesis

Over the duration of my studies at the University of Maine at Farmington, many of the classes offered in the Outdoor Recreation Business Administration degree program provided numerous chances to dive into topics deeper or into ones that laid outside yet paralleled the main course objectives. The two primary examples are Business 360: Entrepreneurship and Business 480: Service Operations Management, both of which proved to be the catalyst for exploring adaptive high adventure in a thesis form.

Within those classes under the course outlines and the encouragement of the professor – Doctor Frank Engert, I explored where current outdoor recreation operations intersected with the adaptive sports and recreation sector. Adaptive sports and recreation are a broad term defined

differently by dictionaries, organizations, and adaptive participants. According to the Children's Hemiplegia and Stroke Association's website "adaptive sports are competitive or recreational sports for people with disabilities. Adaptive sports often run parallel to typical sport activities ... [and] allow for modifications necessary for people with disabilities to participate" (What is Adaptive Sports or Para Sports?, 2015). Both business classes provided space to dig more into how adaptive sports and recreation fit within the larger picture of outdoor recreation.

Within Business 360, students were expected to create a new business venture and go through some of the processes of analyzing the possible viability of the venture through different measures. To find a new concept for a project, adaptive sports appeared to be an underrepresented field in the larger picture of outdoor recreation sector. As part of the class the opportunity arose to look more into current operations in Maine which included the Travis Mills Foundation based in Rome and Maine Adaptive Sports and Recreation in Bethel. This served as the starting point to understanding how organizations reached the adaptive population in the state.

For Business 480, the path continued of building knowledge by asking more questions. Interviews were conducted with managers at both the Travis Mills Foundation and Maine Adaptive Sports and Recreation to understand how they personally became involved with adaptive sports and why they feel the field is an important sector for the outdoor recreation sector to include. All the interviews helped to carve out the deepening interest in outdoor recreation's inclusion of adaptive participants as well as a growing appearance of the narrow options available for those adaptive participants active in outdoor recreation.

Overview of the Contents

With the interest from previous courses and many questions the thesis began to take shape. In order to start finding an answer to what may be missing in the sector for adaptive participants a full study needed to be done. To start, a review of literature on what researchers have already published. Accredited Rehabilitation and Business journals were reviewed to find credible sources on the current discussion of the sector. Many of the articles were focused on programs or examples outside of the United States, however with critical review they were deemed useful and comparable to the sector in the United States. Following the literature review and guided by the information gained, three interviews were done with key personnel. The interviewees were chosen based on their involvement with adaptive sports and the insights they could provide to the overall thesis. The information gained from the interviews would then be used to create a data collection survey. The survey would provide a far wider understanding of the interest in the adaptive outdoor recreation options currently in existence from the adaptive participants themselves. The survey would also provide statistical data from those most likely to use a new offering the outdoor recreation sector.

To create reliable recommendations for organizations looking to expand their high adventure programs to be more adaptive the data from the survey, interviews, and the literature review would be combined. The recommendations would serve as part of the closing to the argument, the other would come from a brief commentary on how the recommendations may be received.

Literature Review

Methodology

To start the search for credible articles from journals, basic criteria needed to be met by the articles. As the focus is on the current state of the outdoor recreation sector articles published in the past 10 years would be the primary focus, although exceptions would be made for older articles with still relevant information. Articles also needed to be from peer reviewed journals to provide credibility as to their content. In going through the databases for journals it became clear there were not many projects looking into adaptive sports and the involvement of adaptive participants in the outdoor recreation sector within the United States. Many of the articles that proved to be the most beneficial came from outside the United States – namely Australia and the United Kingdom. From reviewing the articles, it is unclear why there is a lack of published articles on adaptive outdoor recreation within the United States.

Out of the 15 articles referenced for guidance for this thesis, five articles had a very focused content - on the impact outdoor recreation had specifically on returning military service members and veterans. On many of the databases, many articles were focused on the benefits towards veterans. However, not all those who identify as adaptive participants are former military service members. The remaining articles seven are more generally focused on how the outdoor recreation industry responds towards participants with disabilities and three focus on relational, attitudinal, and psychological responses by all participants to outdoor recreation, highlighting the beneficial outcomes of their participation. Three journals produced many of the articles cited: *Journal of Leisure Research*, *Therapeutic Recreation Journal*, and *Disability and Rehabilitation*.

One hurdle in finding articles was several of the current published fields of thought focused on the therapeutic aspect of outdoor recreation for adaptive participants. This project is looking more at the available options for participants with a disability who want to engage in a variety of high adventure activities that would traditionally be considered challenging for them to do. This is by no means to downplay the importance of that discussion, rather to point out the need for expansion of the conversation around adaptive participation in outdoor recreation. To include the idea that participants may take part because they want to “stay active doing things they enjoy” (MacDonald, 2019). Rather than only using outdoor recreation as a means of therapy or improvement of self-efficiency.

Organizations and the Industry

Eva Jaarsma, Pieter Dijkstra, Jan Geertzen, and Rommert Dekker take time to note non-participation numbers going on to look at the possible barriers to participate. A third of Americans without a disability chose to not participate in sports and recreations, two thirds of those with a disability do not participate (Jaarsma, Dijkstra, Geertzen, & Dekker, 2014, p. 871). This gap may be due to several barriers. However, the research done into the barriers for new participants in recreation is limited (Jaarsma, Dijkstra, Geertzen, & Dekker, 2014, p. 872), leaving a great number of questions of how it affects different forms of disability. Jaarsma et al. note several common barriers to participants with disabilities becoming involved with outdoor recreation. The most common were “difficulties with accessibility” and “a lack of information” (Jaarsma, Dijkstra, Geertzen, & Dekker, 2014, p. 877). Many barriers noted were tied to outside or environmental factors for participants, while facilitating factors³ it was tied towards personal

³ Unless otherwise noted, facilitators or facilitating factors are the elements or factors that promote one’s engagement and facilitate involvement in an activity.

reasons. Prior involvement in recreational activities for those with an acquired disability boosted involvement in activities, and the chance to interact with fellow participants with shared background helped keep participants involved (Jaarsma, Dijkstra, Geertzen, & Dekker, 2014, p. 878) and active in recreation.

Jill Le Clair digs into how the global understanding of disability has changed over time and the impact it has had on participation in sports. The background information she provides to the historical treatment towards those with a disability in recreation aids in understanding the content of the other articles. Le Clair's work is an outlier, by not providing new information applicable to the understanding of the conversation on the outdoor recreation sector. When speaking towards the risks many associate with participating in sports and recreation in general, Le Clair notes recreational activities can improve or sustain health of those with a disability when taking part in an environment with proper training (Le Clair, 2011). She also points out information shared by the United Nations Convention that "access to education is a privilege" (Le Clair, 2011, p. 1083). Having education and knowledge of benefits to outdoor recreation improves the accessibility of high adventure programs. However, access to information can be a challenge for adaptive participants to find along education on how to participate safely.

Nora Shields and Anneliese Synnot's exploratory study of the industry's reaction towards children's facilitators and detractors of participation in physical activity with a disability (Sheilds & Synnot, 2014) provided a few insights even though this thesis is focused on adult participation rather than minors. Shields and Synnot used a small group to conduct their study, even so the data collected highlighted an issue noted by several of the other researchers. The adaptive participation in outdoor recreation is complex and often tied to accessibility (Sheilds & Synnot, 2014). They noted in both the discussion and the data that the biggest hindrance was "a lack of

appropriate and local opportunities... prevented their participation,” (Sheilds & Synnot, 2014, p. 2082). With limited options available for those that wish to become active in the outdoor recreation sector, it is no surprise that it becomes a hindrance to overall participation numbers from adaptive participants.

If physical activity is beneficial to those with a disability, as posed by Barbara Wilhite, Deb Martin, and John Shank, what are ways to encourage this involvement from an organization’s position? Physical activity defined by Wilhite, Martin, and Shank’s work participation in recreation and sport (Wilhite, Martin, & Shank, 2016, p. 36), and as in the first study focused on the facilitators and barriers to involvement in activities. Their work with fourteen participants in surveys and interviews showed some of the facilitators⁴ to be ones highlighted by Shields and Synnot and Jaarsma et al.: resources and opportunities to engage (Wilhite, Martin, & Shank, 2016, p. 41). This did not come as a surprise as in early research into the existence of the adaptive participation and outdoor recreation sectors showed that this could be the main facilitators or detractors for a person’s involvement to try a new activity. Simply having access to information about different recreational activities going on would encourage participation (Wilhite, Martin, & Shank, 2016, p. 46). However, if participants were not living in an area with easy access to recreational facilities or were not aware of activities happening around them their likelihood of participation decreased. Suggested solution noted by Wilhite, Martin, and Shank’s study was the use of internet groups, online searches, and others more active in adaptive outdoor recreation than themselves (Wilhite, Martin, & Shank, 2016, p. 46). Those that held an approach towards outdoor recreation as one in which they could have fun, interact

⁴ A staff member running the activity or program

socially with others, and try new challenges helped to motivate others to join over the other facilitators noted in the article.

Not all the issues encouraging adaptive participation comes from access or knowledge by a community, some of it is tied to uncertainty by organizations as to how best meet the needs of participants with a disability. Laura Misener and Simon Darcy focus on the barriers to participants from an organization which include “[a] lack of understanding and awareness of how to include people with disabilities ... [and] limited opportunities for programmes for participating, training, and competition” (Misener & Darcy, 2014, p. 2). Misener and Darcy shared an example organization in the United Kingdom that was creating open activities for all community members to take part in. While this promoted inclusion within the community and fostered more participation from those with a disability, it did not stimulate more options for those wishing to push their own limits. Involvement of those with adaptive needs, in the eyes of Misener and Darcy, should be just another factor when considering how to design programs on an equal access level (Misener & Darcy, 2014) and communication of opportunities is the primary facilitator in gaining new participants.

A study done by Robert Burns and Alan Graefe sought to answer three questions about participation in outdoor recreation by those with a disability and what factors influenced their decision and ability to participate. Their researched mirrored previous research done noting that the average participation rate in outdoor recreation was lower in households with a disability than those without (Burns & Graefe, 2007, p. 174); however another difference noted in Burns and Graefe’s research was how individuals with a disability living independently were less likely to be active in recreation than if they were in a household (Burns & Graefe, 2007, p. 175). The focus of their study was limited in reach to two metropolitan areas within the United States, thus

they did not dwell on the issue of access to recreational options as other researchers have. They did note that if outdoor recreational operators were to accept suggestions from the community (Burns & Graefe, 2007) that could help managers and operators meet the adaptive desires from those within the community. Another benefit of turning to the community for guidance is gaining direct feedback on how their operation is doing and in what ways they could be better serving the outdoor community they are marketing to.

Historically, recreational services for people with a disability were offered in institutional settings (Evans, Bellon, & Matthews, 2017) with few alternatives. Now, there is a transition from a focus on the medical or therapeutic benefits of recreation towards a focus of empowering those wishing to take part in recreation for leisure (Evans, Bellon, & Matthews, 2017, p. 335). With the transition towards engagement for the enjoyment of recreation (Evans, Bellon, & Matthews, 2017, p. 339), participants focused on their skills and found opportunities to challenge themselves. Even with the move in Australia towards a more strengths-based approach with adaptive participants in outdoor recreation, Evans, Bellon, and Matthews' noted the issue of access to facilities with activities. If communities were to embrace more diverse choices for recreational opportunities access would become a lesser hinderance to participation. A move that would also boost this in communities with fewer resources could be transitioning from "relying solely on disability funding streams" (Evans, Bellon, & Matthews, 2017, p. 434) to exploring other options such as partnerships, grant funding, or philanthropy.

Military Focus

Neil Lundberg, Stacy Taniguchi, Rachel McGovern, and Shauna Smith have a narrow focus in their article "Female Veterans' Involvement in Outdoor Sports and Recreation" within the group of veteran involvement in outdoor recreation. Their motivation is due to the "need to

better understand the experience of female veterans and their adjustment upon returning home” (Lundberg, Taniguchi, McGovern, & Smith, 2016, p. 413) and understanding how female veterans are gaining benefits from participating in outdoor recreation. For their study they interviewed and filmed participants in either a snow sports or water sports camp (Lundberg, Taniguchi, McGovern, & Smith, 2016, p. 418) and discussed the benefits participants and researchers saw after participation in the camp. As the focus of these camps were more on the participant’s abilities and educating them on alternatives for defining their new normal, most of the benefits noted by the participants in the study were emotional or tied to comradery they were missing once they left the service. Lundberg et al. noted that the outlet of outdoor recreation provided the veterans the opportunity to “reconnect with a more authentic identity” (Lundberg, Taniguchi, McGovern, & Smith, 2016, p. 427) they had lost for a time while adjusting back to civilian life. The outdoor recreation participants found the release of doing activities to work through frustrations and emotions in a healthier way while also defining what they were now capable of given the realities of returning to their lives with an acquired disability.

Not everyone finds outdoor recreation as the best solution to finding a new version of themselves, some use it to challenge what they thought they were capable of. David Carless, Suzanne Peacock, Jim McKenna, and Carlton Cooke followed a program based in the United Kingdom that offered a variety of activities for veterans to participate in with the assistance of trained facilitators. The program created an environment of positivity, community, and support for participants working alongside the staff to face new challenges by their choice (Carless, Peacock, McKenna, & Cooke, 2013, p. 2082). Carless et al. found the program created empowerment within individuals by allowing them to find something they were motivated to tackle on their terms rather than having an external motivation from the facilitators to try an

activity. In developing a space – i.e. this program – participants were able to connect with a new version of their former selves. Stories shared in interviews for the study revolved around times when the participants were active and free, immersed in community with like-minded individuals (Carless, Peacock, McKenna, & Cooke, 2013, p. 2084) rather than the isolation they felt after returning from service with a disability preventing them from fully reconnecting with their former selves. While some of the participants studied by Carless et al. wanted to return to who they were prior to military service, the outdoor recreation program allowed them to connect with that internal picture of themselves while defining what they were actually capable of in an environment that allowed them to test the waters as far as they felt comfortable to do.

As with the other studies referenced around veterans and outdoor recreation, the study done by Neil Lundberg, Jessie Bennett, and Shauna Smith mark the importance of how veterans' interactions with outdoor recreation has changed due to an acquired disability from combat. While the number of veterans returning from service with some form of disability (Lundberg, Bennett, & Smith, 2011, p. 115) there is also a growing number of outdoor recreation options for veterans to take part in. However, finding the right program to connect with and take part in can be a challenge with the number of options rising. Lundberg, Bennett, and Smith recommend having dedicated personnel working at centers for veterans that have the appropriate knowledge to connect individuals to the program that best meets their past experiences and current feelings towards their disability. Having an environment where it is encouraged for them to try new experiences at their own comfort allows for changes to take place on the participant's terms (Lundberg, Bennett, & Smith, 2011). This allows veterans to experience the therapeutic effect without the expectation of results for an organization.

The research that has been done on nature has focused on the psychological benefits to one's health, some like Brent Hawkins, Jasmine Townsend, and Barry Garst look at it as a basic means for a strengths-based method to developing more as a person. By incorporating outdoor experiences in nature with recreation (Hawkins, Townsend, & Garst, 2016, p. 63), the veterans have a space to grow in. They have the opportunity to learn what their abilities are in a new setting. Programs such as outdoor adventure therapy, outdoor experiential therapy, and wilderness therapy all draw on the use of nature with the recreational activity incorporated to present a space for veterans to explore themselves at their own pace (Hawkins, Townsend, & Garst, 2016). To go a step further, Hawkins, Townsend and Garst suggest designing programs that play to the strengths veterans gained while in military service (Hawkins, Townsend, & Garst, 2016, p. 67) – developing recreational activities around comradery and assets acquired while in service fosters a high level of participation from veterans with disabilities due to the nature of how familiar it feels.

For Sharon Rogers, David Loy, and Christina Brown-Bochicchio looking at military veteran involvement in outdoor recreation came down to the personal experiences individuals shared and how that could be applied to the larger picture of the benefits of outdoor recreation from returning injured service members. For the ten veterans they interviewed for the study (Rogers, Loy, & Brown-Bochicchio, 2016, p. 215), many missed the sense of community military service had provided them and struggled to find ways that excited them about engaging with civilian life after their service. The freedom of being in the outdoors combined with no pressure of performance creates a space of peace (Rogers, Loy, & Brown-Bochicchio, 2016). Participants can challenge themselves individually while experiencing recreational activities in community. Veterans with a service-related disability present an unique opportunity for outdoor

recreation service providers; they have expectations for themselves but often feel they are unable to meet those self-imposed expectations due to a low self confidence in their own ability.

Operators, per suggestions from Rogers, Loy, and Brown-Bochicchio, can create a sense of comradery in a space that allows veterans to explore their new sense of self with a disability by defying the limits they may think exist for themselves (Rogers, Loy, & Brown-Bochicchio, 2016, p. 223). Having outdoor outlets to return to with their own community of fellow injured veterans allows them to remain connected to a community that understands them better than most of the civilian population (Rogers, Loy, & Brown-Bochicchio, 2016) they interact with on a daily basis.

Benefits Obtained

The psychological benefits of being active in outdoor recreation have been well documented by many studies. Those with a disability might find it more challenging to initially become involved with outdoor recreation due to barriers such as lack of knowledge regarding options available to them and poor access. Travis Dorsch, K. Richards, Jessica Swain, and Myles Maxey pose that by providing an inclusive outdoor recreation program creates awareness of opportunities to become active. While their study focused on one program – the “*Common Ground*” (Dorsch, Richards, Swain, & Maxey, 2016, p. 158) – it highlighted the importance of having programs that helped break established stereotypes as to what participants with a disability are capable of. They noted social barriers were often invisible but felt by participants with a disability when seeking to become involved with outdoor recreation (Dorsch, Richards, Swain, & Maxey, 2016) due to the focus some participants without a disability placed on those with disabilities. By adopting a person-first approach to treating participants, no matter what their disability may be or how it manifests (Dorsch, Richards, Swain, & Maxey, 2016, p. 163), empowerment for participants in their experiences doing activities grows. When facilitators at

programs meet individuals on their terms and have the proper training and equipment, they can foster an attitude in participants of seeing any activity as possible. Suddenly a participant with visual impairments can ski again with a guide and experience an activity they no longer felt was achievable for them. Programs like the one mentioned by Dorsch et al. helps to highlight that there are different ways of approaching outdoor recreation for those with a disability. It does not have to be limited to a therapeutic experience, rather it can include doing outdoor activities as a way to improve the enjoyment of life. Promoting participation in outdoor recreation can help those struggling to adjust to an acquired disability improve their self-confidence (Dorsch, Richards, Swain, & Maxey, 2016, p. 167) and broaden their horizons of what is possible and achievable.

Although Jesy Cordle, Marieke Van Puymbroeck, and Elizabeth Baldwin focus on the self-efficacy aspects of utilizing high ropes courses, they come the closest to a direct discussion on high adventure activities in outdoor recreation for adaptive participants. A key element is the dynamics of a group taking on a high ropes course determines individual's responses to how successful they will be. Those that took on elements of the activity first before seeing others besides the staff member do it found it challenging to attempt as they had no similar point of reference (Cordle, Puymbroeck, Hawkins, & Baldwin, 2016, p. 85) to compare themselves to. While the article makes a strong argument towards using high ropes courses as a way to deepen participants' self-efficacy (Cordle, Puymbroeck, Hawkins, & Baldwin, 2016, p. 88) it fails to discuss how outdoor recreation and high adventure offerings in general can improve individuals enjoyment of life.

With popular culture viewing those with a disability as either weak or "superheros" (Kasum & Mladenovic, 2017, p. 43), it led Goran Kasum and Marija Mladenovic to wonder how

those cultural perceptions affected the self-perceptions of athletes with disabilities. When outside views impress on one's internal perception it changes how one goes about life and views their own confidence. As athletes, this struggle to maintain confidence in themselves against what some would say they are capable, impacts their ability to perform – either positively or negatively. Adaptive athletes are often viewed in a more positive light, being described as “relaxed, confident, cheerful, polite, ambitious, reliable, and self-confident” (Kasum & Mladenovic, 2017, p. 49). Could those same attributes be nurtured in others who casually participated in outdoor recreation that allowed them to try new things outside of what they may feel is conventional? As Kasum and Mladenovic point out, there is minimal research on how participating in outdoor recreation or sports in general encourages more confidence in participants with a disability (Kasum & Mladenovic, 2017, p. 50). With continued growth in the market of recreational opportunities more studies could be done to expand knowledge of the field.

Interviews

As the research provided a picture of the outdoor recreation tourism sector's view towards adaptive participants and discussed the benefits of participating in outdoor recreation. All the information gained, while useful, was a big-picture overview. The common factor mentioned by numerous articles was the lack of knowledge and lack of accessible options for recreational activities. How do these challenges affect individuals if at all. Do they change when considered on a person by person basis? To understand how the overarching ideas mentioned in the articles were applicable to the actual participants, three interviews were conducted to grasp on a more personal level what outdoor recreation accessibility meant.

Interviewees

The interviews were held with three key people that would eventually aid in defining the survey questions, thus help to make the credible journal information more personable. Informal interviews were held with Mackenzie MacDonald, a Maine Adaptive Skier and member of the University of Maine at Farmington alpine team with a visual impairment; Chuck Almany, an adaptive athlete with a lower leg prosthesis; and Carla Chatterton, an organizer at Soldiers Undertaking Disabled Scuba (SUDS). Almany and MacDonald shared their perspectives as athletes and what they would want from a new adaptive program. Chatterton shared her perspective within an organization offering programs to veterans with physical and cognitive disabilities. She also elaborated on how her experiences have shaped her view of the response organizations should have towards those within the adaptive community with a desire to be active in high adventure or unconventional activities.

Insights

The interviews done with MacDonald and Almany – while they are both adaptive athletes – took very different paths. The same set of guiding questions were used (see table 1). Alterations were made to the questions as each interviewee brought their own perspective on the sector. Initially the questions were designed to ask about their current involvement in adaptive sports and recreation and to what extent they felt their desires to be active in outdoor recreation are met. The interviews were relatively relaxed and a few additional clarifying questions were asked depending on what each interviewee shared. Almany shared more about the technical side of being active with a prosthetic while MacDonald shared more about her time with Maine Adaptive. Both allowed for a broad picture of what the adaptive recreation experience was like for participants and how the concepts pointed out by researchers apply to participants.

Table 1

Interview Questions with Almany and MacDonald
a) What level are you currently participating in outdoor recreation?
b) Why do you participate in outdoor recreation? (i.e., what do you feel you are gaining from it?)
c) Would you share some of your experiences with outdoor recreation - both positive and negative?
d) What are some of your current limitations or hesitations with doing high adventure activities?
e) What would make you feel more able to do such activities?
f) What are the current outdoor recreation activities that you and your community (friends and family) can do together as a group?
g) Do you think that doing high adventure activities with your community is important? Why or why not?
h) In your opinion, are there currently enough recreational options for you and your community to challenges yourselves in? Elaborate on that
i) What would you want to see in a high adventure program if there were more activity options available to you?
j) What else should I have asked you?

MacDonald being a younger adaptive athlete is excited by the many options open to her to try. Most of her outdoor recreation experiences are tied to skiing as that is where most of her time goes. When asked what her primary motivations were for participating with outdoor recreation, it mirrored the research. It was a way for her to stay active and have fun. As Dorsch et al. noted, doing activities like skiing is more enjoyable for MacDonald with her community – friends and family, both those with impairments and those without. In her mind, there are plenty of options out there in the outdoor recreation sector, although she did share that there is space for more, particularly those that would challenge her limits more and get her trying new outlets to explore the outdoors.

That was a point Almany touched on as well. He began to be involved with adaptive sports and recreation later in his life and has only recently begun exploring the options for high adventure. Finding new ways to challenge himself and explore new activities is one way he

views outdoor recreation. An example he shared was about snowboarding. While he is no expert at the sport, he has worked with an adaptive program, Adaptive Action Sports (AAS), based out of Copper Colorado the past few winters (Almany, 2019). With knowledge learned from AAS, he began to participate more in snowboarding on top of trying other new activities at a more challenging level. Staying active and remaining part of the activities he enjoyed prior to his prosthetic are his main motivations for being engaged with outdoor recreation (Almany, 2019). He does not to be defined by his prosthetic, rather by what experiences he was able to take part in.

For Chatterton's interview it shifted away from the questions asked of Almany and MacDonald and focused on her experiences with SUDS participants and within the organization from a planning perspective. During the phone interview with Chatterton, she shared how SUDS works with participants to provide an environment for participants to challenge themselves with confidence. Numerous times Chatterton emphasized that all the programs SUDS offers and all the staff working with participants are there to ensure the level of success each participant wants. Some outside of the adaptive world view making activities adaptive as making them "safe" for veterans or "coddling the veterans and being overly protective" (Chatterton, 2019). When asked more directly about what programs SUDS offers for veterans, Chatterton enthusiasm grew as she began sharing some of her experiences and stories of the program's participants. Many of the stories she shared had a similar tone, participants would be hesitant to try scuba diving but once they began the process of being more active in the water and were presented with the opportunity to advance more into diving many would choose to do so. Participants with SUDS are always given the options to try and challenge themselves more but are never pressured into doing anything they feel is beyond their ability.

Almany, Chatterton, and MacDonald with all their different perspectives hit on a similar point. Almany and MacDonald shared how they seek experiences that not only challenge them but give them reasonable confidence that they will be able to achieve the goal they set for themselves. Chatterton mirrored this sentiment by pointing out that it is always up to participants to set their own boundaries. The SUDS staff and volunteers are there to provide support for the participants as they reach their own personal goals.

Usefulness of Interview Feedback

Thanks to the insights from MacDonald, Almany, and Chatterton survey questions were created focused on what the expectations from program staff would be – both facilitators of the activities and the booking staff in the office – their expectations towards such a program, and their opinion as to the importance of such a program. From the stories shared by MacDonald and Almany it was clear that the focus of the survey should be less on the viability of a high adventure program and more on what participants would expect compared to other activities they have tried previously. As all three interviewees pointed out, each person's needs are different and thus will need to be met in different ways without undermining the participant's ability level by making the experience too protected and without challenge.

Surveys

Generation of Survey and Approval

To implement the survey according to the guidelines of the University of Maine at Farmington's Internal Review Board (IRB), the final survey, after meeting with Dr. Frank Engert for feedback and review, was submitted to the IRB for review and approval. Under the guidance of Doctor Karol Maybury – the director of the IRB – and the rest of the IRB, changes were made

to the original informed consent and proposal – specifying how exactly survey participants would be recruited to take part in the survey. After resubmitting the proposal to the IRB with the corrections and improvements from their feedback, the survey received approval to be conducted.

The short, ten question survey was formatted in the online survey service Survey Monkey to allow for an effective and accessible way to complete the survey by participants. The software used by Survey Monkey is compatible with read-aloud programs so participants with visual impairment would be able to complete the survey. The survey was comprised of two pages, an initial landing page which outlined the purpose of the survey and presented survey-takers with an informed consent page to electronically sign if they wished to participate. After agreeing to the informed consent, survey participants were directed to the second page where the questions for the survey were along with a short scenario to provide a hypothetical context (see example 1 and table 2). The survey was shared with two online forums found on Facebook, both groups provide a space for users to share resources and information with other adaptive athletes.

Example 1

Survey Premise

For the purpose of this survey imagine a hypothetical high adventure program that is designed to be fully adaptive to your personal needs. The program would specialize in rock climbing and high ropes courses providing a safe and facilitated activity for you and your friends, family, and colleagues (referred to as community for the remainder of the survey) to come and take part in as one group.

During the booking process of organizing your activity, day staff would work with you to find out what you would need to have to make the activities accessible for you and your unique disability. During the activity itself all the necessary equipment to participate would be present upon your arrival along with facilitators who are trained and familiar with the specialized equipment. Facilitators are also experienced in leading groups comprised of both participants

without a disability and participants with a disability to allow space for everyone to push their own boundaries and challenges themselves by choice.

Table 2

Survey Questions

- a) Would you want to participate in such a program?
- b) Is it an incentive for you that you and your community would be able to participate fully as one singular group?
- c) What are your expectations from the staff at such a program?
- d) How do you feel the staff during the booking process and the facilitators of the activities would affect your experience.
- e) If you had the option to go with a group made up solely of individuals with disabilities, would you rather attend with your community or with the specialized group?
- f) How do you feel personal community aids in engagement in adaptive sports, if at all?
- g) What would your concerns be with a mixed group of individuals, i.e. those with and without a disability?
- h) Is there value to creating a program like this example - open for participants to go with their community and have all their requests for assistance met at the same time?
- i) During the booking phase, what information would you need to know before feeling confident in deciding to attend?
- j) What is the likelihood you would book a trip with this hypothetical organization? (scale of 1-10)

To ensure the Facebook groups and their members would be the appropriate audience for the survey and the survey would be appropriate to share within the group, messages were sent to the forum administrators to discuss the group and if the survey would be an appropriate fit to share with the members. With the consent of the forum administrators along with some baseline knowledge of the motivations for the groups, a brief introduction post was shared in the group to introduce myself and the upcoming survey. By introducing the survey prior to sending out the link to be a respondent allowed for a base of volunteer participants to be gathered early in the

process. It also allowed for the opportunity to address any questions from the forum members about the purpose of the survey and how the information would be used. These identification steps took place a few weeks before the approval for the survey from the IRB, in all interactions around the survey it was made clear to potential respondents that the survey was pending the approval from the IRB and would be shared once granted.

Process of Collection

With the approval of the IRB the survey was shared with the two forums. With Survey Monkey's software, a time table for collection was set at one week after sharing the survey to allow time for most of the participants to respond while providing enough time to analyze the data and assess its usefulness to the thesis' premise. While the survey was shared with two adaptive forums active on Facebook, all the respondents originated from the Be More Adaptive group. After the survey closed, answer data was downloaded and put into a spreadsheet to break down the responses by question type – either organization, employees, or overall interest in the program.

Analyzing the Data

Over the course of a week, twelve respondents took part in the survey providing their experience-based expertise and thoughts on a high adventure program with the option to create space to participate with their community for enjoyment and benefits outside of a means for therapy. While the questions were designed to be open-ended creating space for respondents to provide all insights they wished, a few elected to remain short with their answers simply replying yes or no at times with no additional context.

Many of the respondents elaborated in their response to questions, aiding in the understanding that for different participants different challenges would need to be met by the

staff at a high adventure program. As the survey focused on the staff and expectations of participants towards them, the insights proved to be valuable. While each respondent had a different perspective, all came back to two similar points: knowing as much as possible before hand and not assuming they would be incapable of doing an activity. To quote one respondent with experience with mixed ability groups, “Just don't tell me I'm not capable. I usually train in a mixed group and have roughly zero problems in a mixed group.” All the respondents were excited about the concept, and their feedback reflected this wanting to provide constructive feedback to build a program that would stand the best chance of meeting their needs.

Discussion of Results

Beyond the initial positive reception to the concept, survey participants were intrigued by the idea of a mixed group program where they could go with their families and friends, although it was neither an attracting nor detracting factor some as one noted, “it's definitely nice if it is an option, but it's also sometimes really incredible to build new community with other adaptive athletes” and “being able to do these activities with my family and friends would be really cool. However, being able to meet other adaptive athletes is also really (just differently) cool.” Some even shared how they preferred to challenge themselves as individuals rather than being in a group setting of any kind.

The most interesting findings were tied to the varied responses on how participants expected the staff to be. Two unexpected but understandable responses were having a staff member with medical training and all staff being knowledgeable and familiar with the appropriate language regarding adaptive athletes. As the respondents to the survey had some level of prior involvement in adaptive sports and recreation their feedback from experience gave a new light to an anticipated answer, one of answers and encouragement. They felt the staff

interactions would determine how their hypothetical experience would go, either aiding by providing guidance and assistance when needed and being available for questions beforehand – or lacking adequate knowledge and not allowing space for participants to challenge themselves.

When asked what information participants would like to know prior to making the decision to take part in the hypothetical program, the answers were varied. Some said they wouldn't need anything specific but having a staff member follow up prior to arrival to confirm what assistive devices they would need would help them feel more confident the day of attempting activities. Others said for the staff to be ready for questions, "I like numbers and data. Tell me distances that I might need to travel and inclines I might need to traverse. How many bathrooms are accessible? Are they evenly spaced around the facility? This kind of info helps me know what questions to ask" and another more simply shared "I like to know as much beforehand so I can process everything."

With all the responses the answers proved to be from a place of genuine interest and excitement about a new adaptive experience. While several doubted if all adaptive needs could be met in a mixed group setting, they felt confident that if groups were limited in size and staff was well versed in how to facilitate activities with mixed groups, it might be plausible. The feedback provided on expectations of the staff was in line with industry norms for a service based outdoor recreation company. Additions to industry norms was to have staff aware of the appropriate language to use with participants and what accessibility information would need to be shared. The final question in the survey asked participants to rank on a scale of 1-100 how likely they would be to participate in an outdoor recreation program like the hypothetical one they had been questioned about in the survey. Apart from two responses (50 and 55), all respondents shared a favorable – 80 or higher – ranking of willingness to participate in such a

program. The net promoter score was 60%, with 80% of respondents sharing a promoter score and 20% a detractor score (subtracting the detractors from the promoters).

When survey respondents were asked their opinion on the value of such a program for the adaptive community it was overwhelmingly positive. All respondents shared that it would be an asset to have, if it could be done. Drawbacks they foresaw but hoped could be overcome revolved around language and education on the part of both staff and fellow participants. If there were participants in the activity that were not part of the adaptive participant's community, survey respondents expected them to have knowledge of what the athletes are capable of and possess the mindset of an ally. One respondent who was particularly excited shared this, "I think it would be incredible, if it can be done. Sometimes, you can't meet all of the accessibility needs at once as you could in [dedicated] groups." The challenge they saw in a mixed group would be the lack of availability to provide expertise to the adaptive athletes that need it most when trying high adventure activities for the first time.

The survey respondents provided feedback that showed excitement in the hypothetical program while highlighting the possible failings of a mixed group approach to outdoor recreation. The feedback was not outright critical, rather it provided constructive criticism to use in making suggestions for organizations to best serve an adaptive market.

Best Practices

Thanks to the information gained in the literature review, interviews, and survey collection it became clear that if organizations in the outdoor recreation sector want to meet the needs of the adaptive participants a few practices should be considered for implementation. Recommendations are focused on the staff and how organizations approach those with a

disability in their marketing and engagement activities. There is always room for interpretations with best practice recommendations, as to how it will best fit individual organizations and target markets. These would be universally and easily applicable in the outdoor recreation sector. They are not presented in order of importance, rather a logical implementation process.

Suggested Changes and Applications

Firstly, training and education for employees and/or volunteers. Work with adaptive athlete advocacy groups and potential participants themselves to understand the different needs of this sector. Conducting additional market research with the guidance of an advocacy group or club, an organization has the chance to learn not only more about the market they are trying to serve but also the correct language that should be used. Practice the person first⁵ approach as posed by Dorsch et al., to look at the abilities of the potential users rather than the limitations. In speaking with and researching such groups, learn what participants would need to feel confident in being able to safely challenge themselves while at the program. That feedback will prove to be the most influential guide in shaping the education programs for the staff and volunteers. The more comfortable staff and volunteers are with the language and different ways of approaching challenges for those with a disability, the more capable they will be of facilitating a smooth program.

Secondly, offer more than enough information. Provide information often and early to participants that are interested in the program. Learn from their cues and the data from market research as to what information needs to be included on the website and in the booking process. Pictures and videos of activities with adaptive participants trying it, overall facility pictures

⁵ This approach is placing the focus on the person rather than their disability. They have a disability rather than being the disability (Media Center, 2016).

detailing the accessibility of locations, what equipment is available, all of this will be beneficial for potential participants in making their decision. Ensure the bookings staff are aware of the different types of adaptations that can be made if participants would like them to be made. Follow up after a booking is made as to what specifically a participant might need in terms of accessibility prior to the program day. This reassures participants they are going into a situation that while it may be outside their comfort zone, it is one well equipped to meet their needs.

Thirdly, do not downplay a participant's disability. This may come across as common sense, however based on what Almany, MacDonald, and the survey data showed it is a common occurrence at organizations. One commenter on the survey link said, their biggest frustration was how often they are made to feel they should not challenge themselves. Chatterton with SUDS shared an organization's perspective on the matter of making participants feel inferior. "Do not make activities so adaptive that becomes your focus. Work to make them accessible but focus on ensuring the guys [participants] are having an experience that they can enjoy and be free in doing" (Chatterton, 2019). While some participants may need to have a modified experience on a high ropes course due to a prosthesis, it should not be the defining factor of their experience. They are there trying a new experience and having slight modifications available when needed is the main solution. No need to invest in a lot of staff and highly adaptive options for activities, if participants and facilitators go in with the mindset of success it will prove to be achievable.

The intent was to offer a guide for an adaptive and able-bodied mixed group program, however from the data collected and insights shared it became apparent that may not be the best solo option for organizations. Having the program available to be either mixed or only comprised of adaptive members will attract a larger group of participants and in the end would result in a widening of the market. Some participants, as respondents shared in the survey and as several

researchers shared (Lundberg, Bennett, & Smith, 2011) (Lundberg, Taniguchi, McGovern, & Smith, 2016) (Rogers, Loy, & Brown-Bochicchio, 2016), preferred to be in a group comprised of individuals similar to themselves. Others preferred to do activities with their friends and family, leading to a higher involvement in mixed groups at organizations. With the door open for potential participants to choose either group design, organizations can more fully meet the needs of a new segment of the population wishing to become more involved in outdoor recreation.

The main recommendations shared can have a far reaching impact on organizations and their approach to the adaptive segment of outdoor recreation participants. Others may draw differing conclusions from the data reviewed in this thesis. From the short research and data collection that was done as part of this survey it becomes evident that there are steps every organization should take in order to be more approachable to adaptive outdoor recreation enthusiasts. With some modifications and education on the part of organizations and their employees, nearly any activity in outdoor recreation can become approachable and achievable.

Conclusions

At the start of the thesis, I aimed to create a set model for organizations to apply, however as the research went on it became clear that it would be a challenge to give one firm solution. The issue with a business model is twofold: a lack of knowledge and a lack of specialized equipment. Most adaptations can be made without the use of specialized equipment and rather with knowledgeable staff that can adjust programming to suit an individual's needs. Based on the research done, there does not appear to be a convenient and credible way for organizations to have staff trained in adaptation methods. While it could be beneficial to have it based in a higher education setting - such as certification program offered through a university - the training could also be offered by an outside organization. A new entry into the market may

find that university programs are the easiest way to gain knowledge by taking courses prior to leaving school. Currently operating organizations may look towards a combination of both university offerings and outside certification programs. There are benefits to both methods for offering certifications.

Universities currently offering rehabilitation degree programs could add certificate programs for adaptive sports management by partnering with the business department. This would allow new employees who are entering the outdoor recreation sector to already possess credible knowledge on the needs of adaptive participants. A university offered certification may be out of reach for those that are currently employed in the outdoor sector. Thus, an outside certification program could be another viable solution to the knowledge gap.

Disabled Sports USA would one viable outside organization to provide certification and trainings. They possess credibility with many organizations in the adaptive sports and outdoor recreation sectors. By offering certification programs outside of higher education more organizations could incorporate adaptive programming into their offerings. Organizations could have employees attend sessions held by Disabled Sports USA to expand their knowledge and gain certification in adaptive methods for outdoor recreation. This would allow organizations that are not specialized programs to expand the opportunities for those with a disability to take part in more than what is currently being offered.

Current Offerings

Currently there are a few options in Maine for those that wish to become more active in outdoor recreation, although there are limited in terms of high adventure outlets. Maine Adaptive Sports and Recreation provides many opportunities for athletes to try sports such as downhill skiing, cycling, golf, and indoor rock climbing. They are expanding their offerings; however, it takes time to research similar programs, assess the risks involved with adding the program, and determine if it would be a sustainable option for them to include in their offerings. The Travis Mills Foundation Retreat is another Maine-based program, geared specifically towards veterans and their families. On their property they have a high ropes course, however it is utilized as part of their programming during retreats as an option for families to try and is not open to the public to take part in. Outside of Maine, there are programs like SUDS, Therapeutic Adventures based out of Virginia, and the national organization Disabled Sports USA, which helps provide many organizations in becoming involved in the adaptive sports sector.

“Disabled Sports USA is going to be someone’s biggest resource,” Chatterton shared during the phone interview, highlighting the fact that the information they provide to both individuals and organizations can prove to be vital for different reasons. For individuals, they can find programs and organizations near them, with more information on how to become involved and engage as a new participant. Disabled Sports USA aids organizations by having employees willing to provide knowledgeable insight on the industry of adaptive sports and recreation. Chatterton shared how both SUDS and the Travis Mills Foundation received guidance and insights from the staff at Disabled Sports USA when they were just beginning their respective programs.

Final Thoughts

The information collected and reviewed to create this thesis could serve in several different ways beyond the stated purpose of helping a new or existing organization begin its involvement in the adaptive outdoor recreation sector. There is little research on who takes part in adaptive outdoor recreation for the enjoyment and challenge of it. The articles referenced for this work were a challenge to find and did not completely cover the topic being studied by the author. Without more research and a firmer understanding of the market itself it is hard to know which practices will work and which will fail to connect with the market segment. Many of the studies also appeared to have a narrow focus on why the participants were engaging with outdoor recreation in the first place. A broader approach would again help aid in the understanding, while potentially having the additional benefit of normalizing participation from more members of communities – with or without a disability.

An adaptive lifestyle because of a disability is the reality for nearly 1 in every 5 Americans, and the number of those citizens that engage with high adventure programs is uncertain with the current available research in the sector. The outlets for high adventure activities is limited for those with a disability that have the resources and knowledge of where to access such opportunities, however it is not impractical to suggest that more organizations could comfortably transition into being an adaptive option in the market. More research is needed, but hopefully with the best practice recommendations along with the insights and data from interviewing active members in adaptive recreational activities and surveys helped to shape a more informed picture for organizations. Before committing to offering an adaptive high adventure program, organizations should run their own studies both on the demographics of potential participants and which activities would best serve the community they operate within.

Knowing this will make the suggested practices in this thesis more applicable and successful when applied to real-world operating organizations.

Creating an adaptive program is not making a safe padded space in which civilians and veterans with disabilities can try new things. Leaving space for challenges and even possibly failure helps participants to grow. A draw of outdoor recreation is trying activities that differ from the norm, that force participants to think creatively and rely at times on others to overcome the obstacles they are taking on. Offerings in outdoor recreation can also lead to more freedom, as learning how to try activities such as mountain biking and skiing can lead to more confidence in one's own ability to incorporate similar things as daily norms such as road cycling to stay active. Modifying current offerings by incorporating different harness and safety equipment at facilities to accommodate prosthetics, offering trainings for employees to expand their working knowledge of adaptations available for guest and how to facilitate activities safely, even working to make trails and access point wider and more accommodating to those using mobility assistive devices, small changes that transition the outdoor recreation organization into the adaptive recreation sector. None of these require major changes to the current operating system, nor should it be viewed that way. It is simply meeting participants with information and opportunity to be out of their comfort zone in a facilitated activity, giving them the option of challenge by choice and helping an activity to just be normal. Not an oversimplification so they are able to try the activity – adaptations to make the world a more accessible place.

From all the different points of reference – literature review, interviews, and survey data - it appears apparent that besides the general lack of knowledge about adaptive high adventure activities, there is room to expand the current market offerings. Many operating organizations have the capability to make adaptations without many challenging changes. Risk assessments for

new activities will be the true determining factor if an adaptive addition is feasible for an organization. With the right knowledge and changes, high adventure is just as accessible for participants with as disability and viable for organizations to include in their program offerings.

Works Cited

- Almany, C. (2019, March 29). Honors Thesis Interview. (W. LeMay, Interviewer)
- American Fact Finder*. (2010, October 5). Retrieved April 4, 2019, from United States Census Bureau:
https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_15_1YR_S1810&prodType=table
- Burns, R. C., & Graefe, A. R. (2007). Constraints to outdoor recreation: Exploring the effects of disabilities on perceptions and participation. *Journal of Leisure Research*, 39(1), 156-181.
- Carless, D., Peacock, S., McKenna, J., & Cooke, C. (2013). Psychosocial outcomes of an inclusive adapted sport and adventurous training course for military personnel. *Disability and Rehabilitation*, 35(24), 2081-2088.
- Chatterton, C. (2019, March 1). Honors Thesis Interview. (W. LeMay, Interviewer)
- Cordle, J., Puymbroeck, M. V., Hawkins, B., & Baldwin, E. (2016). The effects of utilizing high element ropes courses as a treatment intervention on self-efficacy. *Therapeutic Recreation Journal*, L(1), 75-92.
- Dorsch, T. E., Richards, K. R., Swain, J., & Maxey, M. (2016). The effect of an outdoor recreation program on individuals with disabilities and their family members. *Therapeutic Recreation Journal*, L(2), 155-171.
- Evans, T., Bellon, M., & Matthews, B. (2017). Leisure as a human right: an exploration of people with disabilities' perceptions of leisure, arts and recreation participation through Australian Community Access Services. *Annals of Leisure Research*, 20(3), 331-348.
- Hawkins, B. L., Townsend, J. A., & Garst, B. A. (2016). Nature-based recreational therapy for military service members: A strengths approach. *Therapeutic Recreation Journal*, L(1), 55-74.
- How will outdoor recreation be defined?* (2017, November 2). Retrieved April 22, 2019, from Bureau of Economic Analysis: <https://www.bea.gov/help/faq/1194>

- Jaarsma, E. A., Dijkstra, P. U., Geertzen, J. H., & Dekker, R. (2014). Barriers to and facilitators of sports participation for people with physical disabilities: A systematic review. *Scandinavian Journal of Medicine & Science in Sports*, 24, 871-881.
- Kasum, G., & Mladenovic, M. (2017). The self-perception of athletes with disability. *Physical Culture*, 71(1), 43-54.
- Le Clair, J. M. (2011). Global organizational change in sport and the shifting meaning of disability. *Sport in Society*, 14(9), 1072-1093.
- Lundberg, N., Bennett, J., & Smith, S. (2011). Outcomes if adaptive sports and recreation participation among veterans returning from combat with acquired disability. *Therapeutic Recreation Journal*, XLV(2), 105-120.
- Lundberg, N., Taniguchi, S., McGovern, R., & Smith, S. (2016). Female veterans' involvement in outdoor sports and recreation. *Journal of Leisure Research*, 48(5), 413-430.
- MacDonald, M. (2019, February 22). Honors Thesis Interview. (W. LeMay, Interviewer)
- Media Center. (2016, 6 9). Retrieved 4 23, 2019, from The Arc: <https://www.thearc.org/who-we-are/media-center/people-first-language>
- Misener, L., & Darcy, S. (2014). Managing disability sport: From athletes with disabilities to inclusive organisational perspectives. *Sport Management Review*, 17, 1-7.
- Outdoor Recreation Participation Report 2017. (2017, August 7). Retrieved April 4, 2019, from Outdoor Industry Association: <https://outdoorindustry.org/resource/outdoor-recreation-participation-report-2017/>
- Rogers, S. D., Loy, D., & Brown-Bochicchio, C. (2016). Sharing a new foxhole with friends: The impact of outdoor recreation on injured military. *Therapeutic recreation journal*, L(3), 213-227.
- Sheilds, N., & Synnot, A. J. (2014). An exploratory study of how sports and recreation industry personnel perceive the barriers and facilitators of physical activity in children with disability. *Disability and Rehabilitation*, 36(24), 2080-2084.

- What is Adaptive Sports or Para Sports?* (2015, May 5). Retrieved April 4, 2019, from Children's Hemiplegia and Stroke Association: <https://chasa.org/adaptive-para-sports/>
- Wilhite, B., Martin, D., & Shank, J. (2016). Facilitating physical activity among adults with disabilities. *Therapeutic Recreation Journal*, L(1), 33-54.